Research Report

DECLINING INDUSTRIES
AND
DISLOCATED WORKER
JOB TRAINING

RESEARCH REPORT

84-01

Missouri Division of Manpower Planning

221 Metro Drive
Jefferson City, Mo. 65101
(314) 751-4750

DECLINING INDUSTRIES AND DISLOCATED WORKER

JOB TRAINING

STATE OF MISSOURI

DEPARTMENT OF SOCIAL SERVICES

DIVISION OF MANPOWER PLANNING

PLANNING AND RESEARCH GROUP

Michael L. Hartmann, Chief

Brian L. Eresh
Brian K. Long
Sara S. Ogawa

August 1984

ACKNOWLEDGMENT

EXECUTIVE SUMMARY

This paper uses declining industry affiliation to identify those long-term unemployed workers who could appropriately be served through Job Training Partnership Act (JTPA) dislocated worker programs. Missouri's declining industries and long-term unemployed are respectively defined as those industries which have undergone protracted employment loss and those workers who have claimed unemployment insurance benefits for longer than the average claimant period. Therefore, this report defines dislocated workers as long-term unemployed workers displaced from declining industries.

This report identifies fourteen Missouri declining industries and uses national employment projections to get an indication of these industries' future employment patterns. National projections are applied to corresponding Missouri industries only where state and national industry employment histories are similar and the projections are presumably more valid. National industry employment projections do not indicate that any of Missouri's declining industries will reverse their employment-losing trend in the near future. These industries can be expected to continue declining, and thus contributing to dislocation, at least through 1990.

According to 1983 Missouri unemployment insurance records, of the 183,000 people who claimed unemployment compensation, 95,762 were long-term unemployed and of this latter number, 17,918 were displaced from declining industries. Neither the total number of unemployed nor the total number of long-term unemployed can, or should be, served by dislocated worker programs. However, the long-term unemployed displaced from declining industries are considered less likely to return to their former industries than are other unemployed workers and are, thus, in greater need of dislocated worker assistance and job retraining.

The characteristics of Missouri's long-term unemployed and dislocated workers are compared to identify differences between dislocated workers and those individuals better served by other JTPA programs. Dislocated workers are slightly older and less concentrated in metropolitan areas than are the long-term unemployed. More significantly, they are almost twice as likely to be last employed in manufacturing industries and over four times as likely to be last employed in mining industries than are the long-term unemployed. Furthermore, among the long-term unemployed, certain occupations are heavily concentrated within the dislocated worker population. These latter two comparisons suggest that, allowing for the effects of business cycle downturns, particular industries and occupations are more affected by dislocation than are others.

The Missouri job training community has begun to recognize the unique reemployment problems of long-term unemployed workers displaced from declining industries. These individuals have little chance of returning to their previous industries and should be recruited for JTPA dislocated worker programs. Furthermore, since declining industries are expected to continue losing employment, job training program participants should not be trained for such jobs unless this training is part of a comprehensive plan to induce long-term employment growth in currently declining industries or is locally necessary as an iterim measure while economic growth and diversification strategies are undertaken.

DECLINING INDUSTRIES

AND DISLOCATED WORKER JOB TRAINING

INTRODUCTION

This report identifies declining (employment-losing) industries in Missouri and uses this information, along with information on the characteristics of 1983 Unemployment Insurance (UI) claimants, to identify a potential target population for Job Training Partnership Act (JTPA) dislocated worker training programs. It assumes that individuals displaced from declining industries are less likely than other unemployed workers to regain employment in their former industry. Further, it recognizes that long-term unemployed individuals are unable to return to work in their former industry and are unable or reluctant to find work in other industries. Thus, this report identifies a target population of dislocated workers consisting of long-term unemployed workers displaced from declining industries. This target population may be more receptive toward, and in greater need of retraining than are other displaced workers.

To identify Missouri's declining industries, we examine Missouri industry employment trends from 1972 to 1982. Since Missouri industry employment projections are not available, we use national projections to yield a rough idea of future Missouri industry employment trends. Generally, national projections indicate that Missouri's declining industries can be expected to continue declining in the future.

Using data from the 1983 UI claimant files, we determine the average length of time claimants received UI benefits during 1983, fourteen weeks. To identify the long-term unemployed, we determine the number of UI claimants receiving benefits for more than fourteen weeks. Finally, using the list of Missouri declining industries, we identify those long-term unemployed who were last employed in a declining industry.

JTPA dislocated worker programs are intended to promote reemployment among people who need such assistance and are unlikely to return to their previous industry. The long-term unemployed have failed to get jobs on their own and are, thus, in need of employment assistance. Workers unemployed from declining industries have little chance of returning to their former employment-losing industry. Therefore, long-term unemployed individuals displaced from declining industries constitute a readily identifiable group of dislocated workers in need of job retraining. These individuals should be served in dislocated worker programs while those that are simply long-term unemployed may be better served in other JTPA programs.

This investigation compares the number and characteristics of dislocated workers with those of the long-term unemployed to help differentiate between individuals needing dislocated worker

assistance and those needing other job training assistance. This comparison also provides industrial, occupational, and demographic information about Missouri's dislocated workers and investigates additional barriers to reemployment (e.g., certain age, race, gender, and occupational characteristics) that they may face.

MISSOURI'S DECLINING INDUSTRIES

One of the primary elements in the JTPA description of a dislocated worker is that such unemployed workers are unlikely to return to their previous industries. This investigation assumes that workers displaced from industries experiencing long-term employment declines are unlikely to return to their former industries. Therefore, to identify dislocated workers, we must identify declining industries.

This investigation defines a declining industry as any industry which has experienced a protracted trend of employment loss over the previous ten-year period. When studying industry-specific employment patterns, a lengthy time period better identifies past employment trends by reducing the influence of short-term fluctuations in industry employment. Longer time periods typically cover more than one employment cycle and provide a better measure of average past employment performance. In addition, longer time periods provide a better base for predicting future employment trends. However, in 1972, the way that industries are classified by the Standard Industrial Classification system (SIC) changed significantly, rendering time series analyses involving years spanning 1972 subject to industry coding discrepancies. Therefore, this investigation analyzes only data collected after the coding change: 1972 to 1982[1].

Employment data were obtained from three primary sources: the Census Bureau's County Business Patterns, the Bureau of Labor Statistics' Current Employment Statistics Report on Employment, and the Bureau of Economic Analysis' Employment by Place of Work. (See Appendix A for documentation of the data sources.) Using these multiple databases increases the reliability of the data used to identify declining industries. To increase the compatibility of the databases and to get an overall view of Missouri's employment history, industries were examined only at the two-digit (SIC) level of detail.

Regression lines were fitted to the databases to measure past employment trends. Regression trend lines, which measure the flow of employment change over the study period, incorporate more information than a simple calculation of net employment change. Those industries which exhibit negative sloping trend lines, as determined by a majority of the available databases, are con-

---

[1]Three databases were used in this study, two providing data from 1972 to 1982 while the third, County Business Patterns, extends only from 1972 to 1981.

sidered to be employment-losing, or declining, industries.[2]

By this criterion, fourteen of Missouri's two-digit industries are classified as declining. They are:

SIC	INDUSTRY TITLE
10	Metal Mining
14	Nonmetallic Mining Except Fuels
20	Food and Kindred Products
23	Apparel and Other Textiles
31	Leather and Leather Products
32	Stone, Clay, and Glass Products
37	Transportation Equipment
39	Miscellaneous Manufacturing
40	Railroad Transportation
53	General Merchandise Stores
55	Auto Dealers and Service Stations
66	Combined Real Estate, Insurance, Etc.
78	Motion Pictures
88	Private Households

Table 1, Appendix B shows these industries' average annual numeric and percentage employment declines.

Industries which exhibit cyclical employment patterns corresponding to fluctuation in the national business and employment cycles incur employment losses during economic downturns only to recover that employment during the following periods of recovery. Recessionary employment losses in cyclical industries are often confused with structural employment losses. This confusion results from the large employment decreases that cyclical industries experience during recessions. These relatively abrupt employment losses exaggerate the long-term unemployment problems of cyclical industries. Cyclical unemployment will be corrected after the economic recovery without requiring unemployed workers to adjust their work skills. Therefore, any job training programs focusing on individuals displaced from cyclical industries should be developed only with the awareness of these industries' cyclical employment tendencies.

---

[2]None of the databases used in this investigation provide employment figures for all of the 72 two-digit industries represented in Missouri. Therefore, for some industries, two, and in one special case only one, database(s) were available for analysis.

An inspection of past employment performance reveals that two of Missouri's declining industries, Transportation Equipment and Stone, Clay, and Glass Products, display highly cyclical employment patterns. These two industries experienced wide variations in work force size and realized major employment reductions concurrent with the 1974-1975 and 1980-1982 downturns in the national business and employment cycles.

COMPARISON WITH NATIONAL DATA

Dislocated worker programs must recognize the changing nature of dislocation and should consult industry employment projections to get an idea of which declining industries are predicted to continue declining and, thus, dislocating workers. However, at the writing of this paper, Missouri industry employment projections were not yet available and, therefore, we relied on national projections. National projections are most likely to be valid indicators of future Missouri employment trends in those industries which exhibit similar state and national employment histories. Where past national and state industry employment trends differ, national projections are less reliable. Therefore, prior to discussing national projections, we first examine how closely Missouri and national employment patterns correspond.

The same methodology, databases and definitions used to identify Missouri's declining (employment-losing) industries were also used to identify national declining industries. This process yields a list of fifteen nationally declining industries:

SIC	INDUSTRY TITLE
*20	Food and Kindred Products
21	Tobacco Manufactures
22	Textile Mill Products
*23	Apparel and Other Textiles
25	Furniture and Fixtures
*31	Leather and Leather Products
*32	Stone, Clay, and Glass Products
33	Primary Metal Industries
*39	Miscellaneous Manufacturing
*40	Railroad Transportation
41	Interurban Passenger Transit
*53	General Merchandise Stores
*55	Auto Dealers and Service Stations
*66	Combined Real Estate, Insurance, Etc.
*88	Private Households

Table 2, Appendix B shows these industries' average annual volume and percentage declines.

Ten of these nationally declining industries, indicated by asterisks in the above list, are also declining in Missouri.

These similarities are further enhanced when one considers that, in most instances, the employment patterns of the Missouri declining industries parallel those of corresponding national industries. Therefore, national industry employment projections provide rough indicators of future employment trends in these ten Missouri declining industries.

The Bureau of Labor Statistics (BLS) includes employment projections for national industries in its March 1982 publication, Economic Projections to 1990. BLS employed three projection models which each assume different economic scenarios to produce three estimates of future national industry employment trends. At the aggregate level, the models all predict varying degrees of employment growth through 1990 in each of the major industry sectors except agriculture, which is projected to steadily decline. (See Appendix B, Table 3.) At more disaggregated levels (two-, three-, and four-digit SIC levels) the models identify particular industries which are expected to decline within major sectors that are projected to grow overall. Each model, due to differences in assumptions, produced its own set of declining industries at these more detailed levels. (See Appendix B, Table 4.)

Unfortunately, most of the BLS projections are at the three- and four-digit SIC levels of detail while the Missouri declining industry data is at the more aggregated two-digit level. Therefore, while it is generally not possible to ascribe the nationally projected industry employment losses to corresponding Missouri industries, the projected employment trends of the national three- and four-digit industries contained within Missouri two-digit industries can be used to yield rough approximations of future Missouri industry employment trends.

The national models project that six of Missouri's ten declining industries which are also declining nationally will either continue to decline or contain more disaggregated industries which are predicted to lose employment. These industries are: Leather and Leather Products; Stone, Clay, and Glass Products; Food and Kindred Products; Miscellaneous Manufacturing; Railroad Transportation; and Private Households. Since these six industries have declined over the past ten years and can be expected to continue losing employment at least through 1990, they are the most appropriate targets for sustained dislocated worker programs that we can identify.

Industry employment projections are not available for three of the four remaining declining industries common to both Missouri and the nation. The Missouri General Merchandise Stores; Auto Dealers and Service Stations; and Combined Real Estate, Insurance, etc. industries have experienced negative past employment trends and since no projections are available to indicate otherwise, this report assumes that they will continue to decline in the future.

The Apparel and Other Textile industry is also declining in

both Missouri and the nation but is nationally projected to gain employment through 1990. The predicted 1990 employment, however, is well below the industry's peak employment level of 1973.[3] This means that for almost two decades the national apparel industry will have experienced negative employment trends. Therefore, we are unconvinced that the Missouri industry will turn around in the next few years and based on its past employment record expect it to continue declining.

Of the four industries which are declining in Missouri but not declining nationally, Nonmetallic Mining Except Fuels, Transportation Equipment, and Motion Pictures are nationally projected to decline. Projections for nationally nondeclining industries cannot appropriately be applied to Missouri declining industries. However, it seems unlikely that Missouri industries which have lost employment for the past ten years and whose national counterparts are projected to decline will expand in the immediate future. In fact, we expect these industries to continue declining and consider them probable sources of future dislocation.

Metal Mining is the other industry declining in Missouri but not the nation. Its differing employment history probably results from Missouri's metal mining industry being more specialized in lead and zinc mining than the national industry. Therefore, the national projection may not be applicable to Missouri. This suggests that the negative past employment trend is a better indicator of Missouri's future metal mining employment.

In summary, analysis of BLS national industry employment projections suggests that none of the fourteen Missouri declining industries should be expected to reverse their long-term decline. The strongest case for continued decline can be made for the six Missouri declining industries which are also declining nationally and are projected to continue losing employment. However, all of Missouri's declining industries should continue to dislocate workers through the end of the decade and can all appropriately be targeted for dislocated worker programs.

MISSOURI'S LONG TERM UNEMPLOYED

The preceding sections identified declining (employment-losing) industries through analyses of past employment performance. This section uses these declining industries and characteristics of 1983 unemployment claimants to identify a group of Missouri's dislocated workers. The dislocated workers are then compared to all long-term unemployed to identify any unique characteristics of the dislocated workers which would further identify those individuals who should be served through dislocated worker programs.

_____

[3]All three databases used in this investigation indicate that in 1973 the national apparel industry had over 1,420,000 employees. The most optimistic BLS projected 1990 employment for this industry is only 1,319,000.

- 6 -

Long-term unemployment demonstrates a worker's inability to obtain employment and, therefore, a need for employment assistance. Differentiating between the long-term unemployed and dislocated workers identifies those individuals more appropriately served in dislocated worker programs from those more appropriately served in other job training programs. Using 1983 unemployment claimants records, we defined the long-term unemployed as those individuals who drew unemployment insurance benefits for longer than the average length of assistance received by all claimants. In Missouri the average length of assistance was fourteen weeks.

Using this definition, there were 95,762 long-term unemployed individuals in 1983. Approximately nineteen percent or 17,918 of the long-term unemployed were last employed in one of the declining industries and, thus, constitute our best estimate of Missouri's 1983 dislocated worker population.[4] The dislocated worker population makes up a minority portion of the long-term unemployed and only represents about ten percent of the 183,000 individuals who received unemployment insurance benefits in 1983.

Table 5 (Appendix B) compares selected demographic characteristics of the long-term unemployed and the dislocated workers. The table emphasizes the similarity in the demographic characteristics of the two groups. Dislocated workers differ from the long-term unemployed at only two junctures: 1) dislocated workers are slightly less metropolitan (residing in the St. Louis and Kansas City Standard Metropolitan Statistical Areas), and 2) slightly older (over forty-four years of age) than are the long-term unemployed. Since even these differences are minor, Missouri cannot target individuals for dislocated worker programs based on demographic characteristics.

An abridged list of the dislocated worker occupations along with the number of dislocated workers in each occupation, the percent of total dislocated workers in each occupation, and the percent of the occupations' long-term unemployed that are dislocated is shown in Table 6 (Appendix B). Transportation Equipment Assemblers head the list accounting for 1,497 (8.4 percent) of Missouri's dislocated workers. The dislocated worker percent of the occupations' long-term unemployed column shows some occupations accounting for long-term unemployment because of their ties with the declining industries (e.g., eighty percent of the long-term unemployed Transportation Equipment Assemblers were identified as dislocated), while for other occupations this is not the case (e.g., twenty-one percent of the long-term unemployed Packaging and Materials Handlers were identified as dislocated). By assuming that workers do not easily move between different occu-

---

[4]Workers in the Railroad Transportation industry do not participate in the Missouri unemployment insurance program. Therefore, railroad workers are not counted in this measure of Missouri's dislocated worker population.

- 7 -

pations and industries (industry and occupational mobility are difficult to identify), this percentage can be used to differentiate between occupations and their association with dislocation. Long-term unemployed individuals with occupations showing high measures of dislocation could appropriately be recruited into dislocated worker programs whereas the remaining long-term unemployed can be served by other job training programs.

The major one-digit industry affiliations of the dislocated workers and the long-term unemployed are shown in Table 7 (Appendix B). While manufacturing industries were the previous employers of a vast majority of the dislocated workers, this was not the case among the long-term unemployed. Manufacturing accounts for the largest share of the long-term unemployed but does not constitute even a simple majority. Manufacturing is twice as important in accounting for dislocation as it is in accounting for long-term unemployment.

Mining is the only other industry sector which is more important in accounting for the dislocated workers than the long-term unemployed. The percentage of dislocated workers accounted for by Mining industries is four times larger than its percentage of the long-term unemployed.

Occupation and industry characteristics distinguish the dislocated workers from the long-term unemployed. The demographic characteristics of the dislocated workers almost parallel those of the long-term unemployed. Industry distinctions between the two groups are expected because the dislocated workers are identified by industry affiliation. The occupational distinctions between the two groups may be pointing out specific occupations within Missouri's declining industries being directly affected by dislocation. These occupational distinctions are very promising in identifying dislocation since many occupations of the long-term unemployed are industry specific. However, when using this approach, one must recognize that it discounts industry and occupational mobility.

Table 8 (Appendix B) shows Missouri's two-digit declining industries with the number and percent of long-term unemployed accounted for by each. With some caution, this table can be used to compare dislocation among the industries. The Manufacturing and Mining industries in this table along with Auto Dealers and Service Stations have inflated long-term unemployment figures because of their cyclical employment tendencies. But even if the figures could be deflated, these industries and the addition of General Merchandise Stores, would still account for the vast majority of Missouri's dislocated workers.

CONCLUSION

Defining dislocated workers as those long-term unemployed workers displaced from declining industries is a useful way of operationalizing the JTPA description of dislocation. Using 1983

data, this method identifies 17,918 of Missouri's 95,762 long-term unemployed as dislocated workers. Analysis of these workers' unemployment insurance records provides job training planners with valuable demographic, occupational, and industrial information. This information can be used to direct dislocated workers into appropriate JTPA dislocated worker training programs which will give them opportunities to learn new skills associated with expanding industries and occupations.

The characteristics of Missouri's long-term unemployed and dislocated workers were compared to identify differences between dislocated workers and those individuals better served by other JTPA programs. Dislocated workers are slightly older and less concentrated in metropolitan areas than are the long-term unemployed. More significantly, they are almost twice as likely to be last employed in manufacturing industries and over four times as likely to be last employed in mining industries than are the long-term unemployed. Furthermore, among the long-term unemployed, certain occupations are heavily concentrated within the dislocated worker population. These latter two comparisons suggest that, allowing for the effects of business cycle downturns, particular industries and occupations are more affected by dislocation than are, others.

The Missouri job training community should recognize the unique reemployment problems of long-term unemployed workers displaced from declining industries. These individuals have little chance of returning to their previous industries and should be recruited for JTPA dislocated worker programs. Furthermore, since declining industries are expected to continue losing employment at the state level, job training program participants should not be trained for jobs in these industries unless this training is part of a comprehensive plan to induce long-term employment growth in currently declining industries. However, given the static nature and lack of employment alternatives in some local economies, training for jobs in declining industries may be necessary as an interim measure while long-term economic growth and diversification strategies are undertaken.

APPENDIX A

PRIMARY SOURCES OF DATABASES

Census Bureau: <u>County Business Patterns</u>

1. Treasury Form 941, Schedule A - Each employer (other
    than agricultural and household) submits this quarterly
    report to the Social Security Administration (SSA).
    The report shows the names, account numbers, and
    taxable wages of all employees. County Business
    Patterns data utilizes only first quarter reports in
    its annual tabulations.

2. Establishment Reporting Plan - A Social Security
    Administration voluntary survey of employers that have
    50 or more workers with either five or more workers in
    a secondary state or 10 percent of the employment in
    secondary counties or industries.

3. Special Multiunit Survey - A Social Security
    Administration sample of approximately 4,000 multiunit
    employers who decline to participate in the Estab-
    lishment Reporting Plan.

4. Bureau of the Census 1977 Economic Censuses and Annual
    Organization Surveys - These are mandatory reports
    which provide multiestablishment first-quarter employer
    employment data for each establishment.

Bureau of Labor Statistics: <u>Report on Employment 1972-1982</u>

1. 790 Nonagricultural Establishment Survey - The Bureau
    of Labor Statistics (BLS) 790 survey is a voluntary
    program in which selected establishments, approximately
    165,000 nationwide, respond monthly to questions
    concerning employment totals, hours, and earnings. The
    sample group of establishments participating in the 790
    survey is drawn from the BLS Total Wage and Contribu-
    tion File which is in part composed of mandatory
    unemployment insurance reports which cover approximate-
    ly 97 percent of all wage and salary employment.

Bureau of Economic Analysis: <u>Employment by Place of Work</u>

1. ES-202 - A BLS summary of the Total Wage and Contribu-
    tion File.

APPENDIX B

.

TABLE 1

MISSOURI'S DECLINING INDUSTRIES*

1972-1982

SIC	INDUSTRY TITLE	AVERAGE ANNUAL VOLUME DECLINE	AVERAGE ANNUAL PERCENTAGE DECLINE
10	Metal Mining	127	3.6
14	Nonmetallic Mining Except Fuels	72	2.1
20	Food & Kindred Products	320	.7
23	Apparel & Other Textiles	770	2.3
31	Leather & Leather Products	548	2.1
32	Stone, Clay, & Glass Products	176	1.4
37	Transportation Equipment	1,831	2.4
39	Miscellaneous Manufacturing	129	1.5
40	Railroad Transportation	627	3.2
53	General Merchandise Stores	1,058	1.8
55	Auto Dealers & Service Stations	588	1.4
66	Combined Real Estate, Insurance, Etc.	41	4.3
78	Motion Pictures	28	.7
88	Private Households	1,090	2.5

*Volume and percentage of decline represent averages of all available databases.

TABLE 2

NATIONAL DECLINING INDUSTRIES*

1972-1982

SIC	INDUSTRY TITLE	AVERAGE ANNUAL VOLUME DECLINE	AVERAGE ANNUAL PERCENTAGE DECLINE
20	Food & Kindred Products	7,400	.5
21	Tobacco Manufactures	600	.9
22	Textile Mill Products	19,100	2.0
23	Apparel & Other Textiles	16,900	1.2
25	Furniture & Fixtures	2,800	.7
31	Leather & Leather Products	6,500	2.3
32	Stone, Clay, & Glass Products	5,100	.8
33	Primary Metal Industries	18,300	1.5
39	Miscellaneous Manufacturing	3,600	.7
40	Railroad Transportation	14,000	2.4
41	Interurban Passenger Transit	4,100	1.2
53	General Merchandise Stores	15,000	.7
55	Auto Dealers & Service Stations	9,800	.6
66	Combined Real Estate, Insurance, Etc.	1,300	3.6
88	Private Households	507,000	2.3

*Volume and percentage of decline represent averages of all available databases.

TABLE 3

AVERAGE ANNUAL PERCENT CHANGE IN EMPLOYMENT BY MAJOR SECTOR

SELECTED YEARS, 1969-1990

Industry Sector	ACTUAL 1969-1979	PROJECTED					
		1979-1985			1985-1990		
		LOW TREND	HIGH TREND I	HIGH TREND II	LOW TREND	HIGH TREND I	HIGH TREND II
Total Private Employment	2.1	1.6	2.5	1.8	1.5	2.1	1.7
Agriculture	-2.1	-1.2	.6	.6	-2.3	-2.1	-2.1
Nonagriculture	2.3	1.7	2.5	1.8	1.6	2.2	1.8
Mining	3.5	4.1	5.0	4.0	1.5	2.3	1.4
Construction	3.0	2.3	3.1	2.4	.5	1.2	.8
Manufacturing	.5	.9	1.8	1.1	.8	1.4	.9
Durable goods	.7	1.0	2.0	1.3	1.0	1.8	1.2
Nondurable goods	0.0	.7	1.5	.8	.3	.6	.4
Transportation, communications &							
public utilities	1.6	1.1	1.9	1.1	1.1	1.9	1.1
Transportation	1.3	.9	1.6	.8	1.1	1.6	1.1
Communications	2.3	1.6	2.6	1.8	1.3	2.4	1.4
Public utilities	1.8	.8	2.2	.9	.7	2.0	.6
Wholesale and retail trade	3.0	1.8	2.6	1.8	1.7	2.3	1.9
Finance, insurance, &							
real estate	3.6	1.7	2.6	2.1	2.8	3.0	2.6
Services	3.7	2.2	3.2	2.6	2.7	3.3	2.9
Private households	-2.9	-1.4	-1.0	-1.3	- .1	- .3	- .1
Other services	4.0	2.4	3.3	2.7	2.7	3.3	2.9
Government enterprises	.8	1.9	2.7	2.1	1.8	2.6	1.8
General Government Employment	1.1	1.0	1.0	.9	.6	.6	.5
Federal Government	-2.8	.5	.5	0.0	.3	.3	0.0
State and local governments	2.9	1.2	1.2	1.2	.7	.7	.7
TOTAL EMPLOYMENT	1.9	1.5	2.3	1.7	1.4	1.9	1.5

Source: Economic Projections to 1990, March 1982, U. S. Bureau of Labor Statistics

Table 4

Projected Average Annual Percent Loss of Employment by Industry

SIC	INDUSTRY	1979-1990 LOW TREND	HIGH TREND I	HIGH TREND II
011	Food & feed grains	- .7	+	+
0131	Cotton	-1.4	- .3	- .5
019 & 029	Agricultural, other	-1.8	- .7	- .9
021	Meat & livestock products	-1.4	- .4	- .1
024 & 025	Dairy & poultry products	-3.3	-2.3	-2.0
*142 & 145	Stone & clay & Quarrying	+	+	- .3
*202	Dairy products	-1.6	-1.0	-2.2
*203	Canned & Frozen Foods	- .5	+	+
*205	Bakery products	-1.5	- .9	-1.2
*2065	Confectionary products	-1.0	- .5	- .7
*2082-2085	Alcoholic beverages	-3.1	-2.7	-2.7
*209	Food products, other	- .9	- .3	- .4
21	Tobacco	- .7	- .3	- .4
22	Fabric, yarn & thread mills	+	+	- .1
241	Logging	-2.4	-1.8	-2.8
242	Sawmills & planing mills	- .6	- .2	- .9
243	Other millwork, ply-wood & wood products	-1.0	- .4	- .3
244	Wooden containers	-1.6	-1.0	-1.3
282	Plastic materials & synthetic rubber	- .3	+	+
2823	Synthetic fibers	-2.1	-1.4	-1.3
29	Petroleum refining	-1.2	- .4	-1.2
*331	Leather tanning & industrial leather	-2.7	-2.2	-2.6
*314-319	Leather products including footwear	- .9	- .3	- .8
*324-327	Cement & Concrete products	- .1	+	+
*325	Structural clay products	-1.5	-1.2	-1.7
365	Radio & television receiving sets	-1.4	+	+
369	Electrical equipment, other	- .3	+	- .2
*371	Motor Vehicles	- .7	+	- .5
*374	Railroad equipment	-1.0	+	+

| | | 1979-1990 | | |
SIC	INDUSTRY	LOW TREND	HIGH TREND I	HIGH TREND II
*3761	Complete guided missiles & space vehicles	-1.3	- .9	- .5
387	Watches, clocks, & clock operated devices	- .7	+	- .9
*391	Jewelry & silverware	- .2	- .1	- .2
*40	Railroad Transportation	-1.7	-1.2	-1.6
44	Water Transportation	-1.1	- .8	-1.8
*78	Motion pictures	+	+	- .1
*88	Private households	- .8	- .7	- .7

The Bureau of Labor Statistics (BLS) used three projection models in its March 1982 publication, Economic Projections to 1990: (1) a low-trend version which assumes a decline in the rate of expansion of the labor force, continued high inflation, moderate productivity gains, and modest increases in real output and employment; (2) a high-trend version I in which the economy is characterized by larger labor force growth, much lower unemployment rates, higher production, a slowing of price increases, and greater improvements in productivity; and (3) a high-trend version II, which is characterized by the rapid output growth of high-trend I, the same labor force as the low-trend model, and substantial productivity gains. All three models include assumptions of lower taxes, higher investment, and continued oil scarcity.

+Projection did not show an employment loss.
*Industries contained within or corresponding to the two-digit declining industries in Missouri.

Source: Economic Projections to 1990, March 1982, U.S. Bureau of Labor Statistics

TABLE 5

DEMOGRAPHIC COMPARISON SUMMARY

	LONG-TERM UNEMPLOYED	DECLINING INDUSTRY SUBGROUP
Percent White	80	83
Percent 22-44 years old	66	64
Percent Male	61	58
Percent Welfare	3	3
Percent Economically Disadvantaged	17	16
Percent Residing in St. Louis or Kansas City SMSA	55	47
Percent over 44 years old	24	27

Source: 1983 Missouri Unemployment Insurance Applicant File

TABLE 6

OCCUPATIONAL COMPOSITION

Occupation	Number of Dislocated Workers	Percent of Dislocated Workers	Dislocated Workers Percent of Long-Term Unemployed
Transportation Equipment Assembler	1,497	8.4	80
Sewing Non-garment	878	4.9	80
Packaging/Material Handling	707	3.9	21
Metal Unit Assembler	646	3.6	24
Fabrication/Repair Footwear	558	3.1	84
Packaging	536	3.0	33
Motor Vehicle Mechanic	478	2.7	36
Welders/Cutters	457	2.6	31
Cashier/Teller	455	2.5	19
Ship/Receive/Stock Clerk	348	1.9	22
Sales Clerks	325	1.8	27
Plastics/Synthetics/ Rubber/Leather Working	319	1.8	73
Arc Welders/Cutters	315	1.8	34
Hoisting/Conveying	315	1.8	23
Attendants Service Stations/Parking Lots	312	1.7	45
Steno/Typing/Filing	278	1.6	12
Truck Drivers - Heavy	274	1.5	13
Sewing - Garment	268	1.5	83
Moving/Storing Materials	239	1.3	15

Source: 1983 Missouri Unemployment Insurance Applicant File

TABLE 7

MAJOR INDUSTRY COMPOSITION

	Percent of Long-term Unemployed	Percent of Dislocated Workers
Manufacturing	35.5	73.6
Trade	22.8	20.3
Services	18.9	1.6
Construction	9.9	-0-
Transportation, Communications and Utilities	4.9	-0-
Finance	2.9	.1
Mining	1.0	4.4
Other	4.1	-0-
TOTAL	100.0	100.0

Source: 1983 Unemployment Insurance Applicant File

TABLE 8

MISSOURI DISLOCATED WORKERS BY INDUSTRY

Industry	Number	Percent	Cumulative Percent
Transportation Equipment	4,258	23.6	23.6
Apparel	2,295	12.8	36.4
Food and Kindred	2,258	12.6	49.0
Leather	2,172	12.2	61.2
Auto Dealers and Service Stations	1,940	10.8	72.0
General Merchandise Stores	1,692	9.5	81.5
Stone/Clay/Glass	1,323	7.5	89.0
Miscellaneous Manufacturing	891	5.0	94.0
Metal Mining	419	2.4	96.4
Non-metallic Mining Except Fuels	356	2.0	98.4
Private Households	148	.8	99.2
Motion Pictures	144	.7	99.9
Combined Real Estate, Insurance, etc.	22	.1	100.0
*Railroad Transportation	-----	-----	-----
TOTAL	17,918	100.0	100.0

*Railroad Transportation is not covered by Unemployment Insurance.

Source: 1983 Unemployment Insurance Applicant File